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(56) Documents cited
US 4621325 A US 4463429 A US 4336589 A
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(54) Installation for handling perishable goods

(57) An installation for handling perishable goods and recording and controlling their movements, comprises goods inwards and despatch facilities, data terminals 3 for recording the supplier, quantity, type, unit sizes, prices and customers for goods received and despatched, a central data processing unit 4 and a file server 5. One or more sales control terminals 7, 8 display the balances of goods of any specified type to enable the goods supplied to a sales order to be selected. The balances are displayed in date order and goods from the consignment of earliest date are automatically allocated to each order in default of an alternative entry. Means is provided for entering data representing damaged or unacceptable goods.

An installation may comprise a plurality of stations of the above kind, each being linked to a single central station having a common file server and central processing unit.

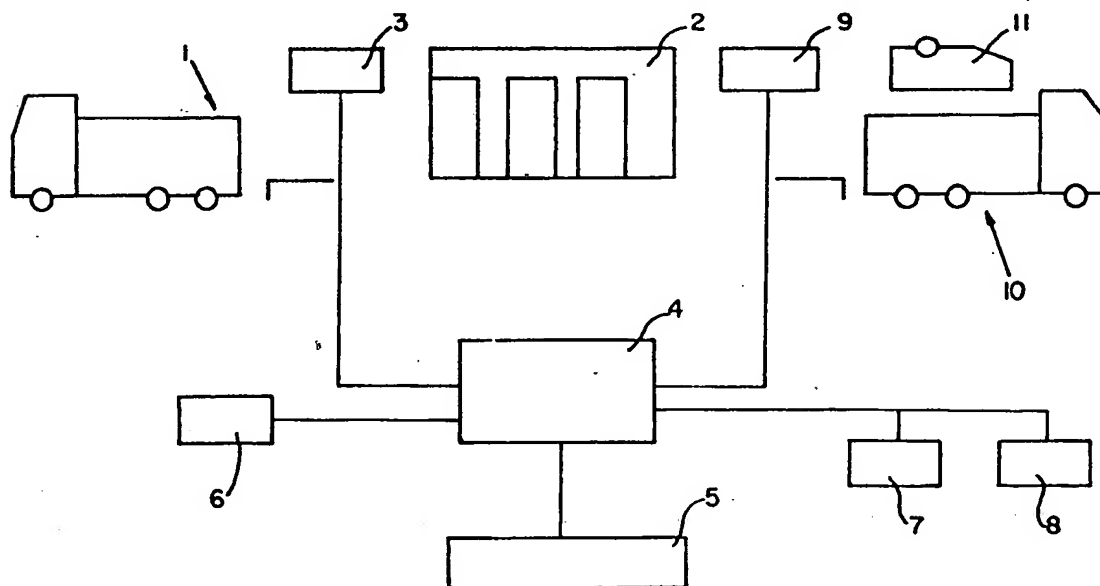


FIG. 1

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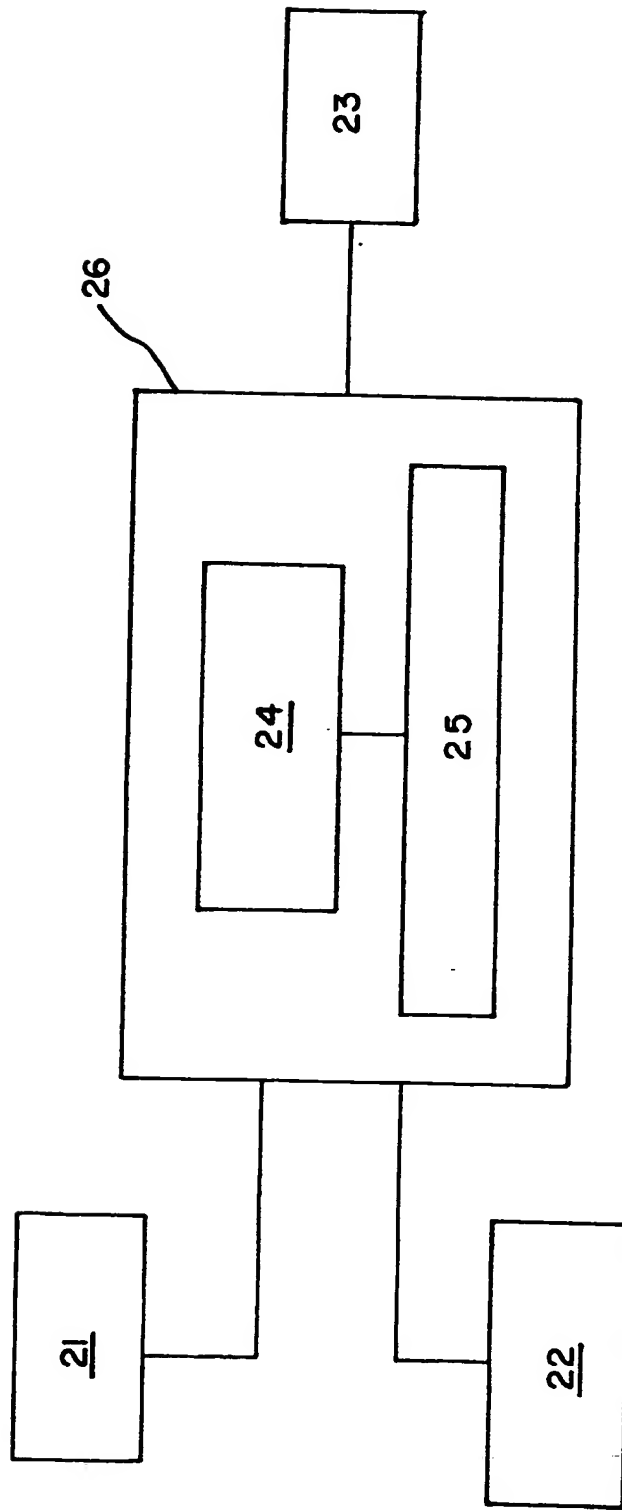


FIG. 2

Installation for handling perishable goods

The present invention relates to an installation for handling perishable goods and recording and controlling their movements.

5 In the handling of perishable goods, such as fruit, vegetables, fish and meat, conventional stock control systems cannot be applied. Because of the of the uncertainties of supply of such goods it is often accepted practice in the industries concerned to substitute for goods in short supply, so that the goods
10 actually received and accepted often do not correspond to the relevant sales order. Furthermore, the limited storage life of the goods causes their market value to deteriorate rapidly while in storage, so that the calculated quantity and nominal value of stock held in storage at any given time is far from a true
15 reflection of the actual trading position. The limited storage life also imposes a requirement for careful control of the order in which the goods are despatched, which will usually, but by no means invariably, be the order in which they were received.

20 The object of the present invention, which is defined in the appended claims, is to provide an installation for handling perishable goods and recording and controlling their movements, and which is particularly directed to overcoming these difficulties.

25 The invention will be further described with reference to the accompanying drawings, in which

Figure 1 is a schematic block diagram of an installation according to the invention, and

30 Figure 2 is a schematic block diagram of a more complex installation, comprising a number of simpler installations of the general kind shown in Figure 1 sharing data storage

means and a central processing unit at a single central station to which they are linked by data transmission means.

Referring first to Figure 1, perishable goods arrive at an unloading bay 1 at which they are unloaded and transferred to a storage facility 2. In proximity to the unloading bay are one or more data entry terminals 3, each connected to a central processing unit 4. When a consignment of goods arrives an initial entry is made of an acronym or abbreviation of the name of the supplier of the goods, this serving as a supplier code. The central processing unit 4 refers to stored data held in a file in a file server 5 and obtains a next available serial number, which is concatenated with the supplier code to form the consignment code which will henceforth identify the consignment.

As the goods are unloaded they are inspected and entries are made at the terminal 3 of the quantity, type and unit size of each unit of the goods being unloaded. To facilitate data entry each type of goods is allocated an easily-remembered mnemonic code, usually of three letters indicating the nature of the goods, together with a number, which may represent, for example, a quality or size grading. Any damaged or unacceptable goods are put aside, and, where appropriate, are recorded for the purposes of replacement or insurance claim, corresponding entries being made at the terminal 3. All the acceptable goods are transferred to the storage facility 2.

Payment for the goods may be at a fixed price, or the goods may be sold on a commission basis, the supplier being paid the sale value of the goods less a previously agreed commission. A control console 6 is provided in the manager's office for supervisory purposes, and by means of this the charging basis for the consignment is entered into the central processing unit, together with the price, if it is fixed, or the commission rate, if the goods are to be sold on a commission basis.

The installation includes a number of sales control terminals, each of which is connected to the central processing unit, two of them, 7 and 8, being shown in the drawing. At each sales control terminal a sales clerk deals with incoming sales orders.

5 When a sales order is received the sales clerk dealing with it enters on his or her sales control terminal a code representing the customer, and details of the type and quantity of goods ordered. The console of the sales control terminal then displays the balances of that type of goods remaining in storage,
10 consignment by consignment and in order of their date of receipt, the earliest being shown first. If required the sales clerk can then allocate goods to the sales order from consignments selected at discretion. However, in most cases it will be preferred to allocate the goods on a "first in - first out" basis, and the
15 central processing unit is programmed to do this automatically as a default when the ENTER key of the sales control terminal keyboard is pressed.

Data accumulated in this way for each customer are assembled into a batch file, which is then sent to a console 9 situated at a
20 despatch facility 10. This console includes a printer 11 on which the batch file is printed out, the print-out providing loading instructions in accordance with which goods are withdrawn from storage 2 for despatch. Confirmation that the goods have been despatched is then entered at the console 9.

25 From the data in the computer, customer invoices, accounting information and statistical reports are generated. Also a stock balance summary is generated at intervals and checked against the physical stock in storage. Adjustment entries are made via the control console 6 to adjust any discrepancies which may have
30 occurred between the recorded balances and physical stock.

All normal precautions are taken to ensure system integrity and security of data. A tape streamer 12 provides for back-up in the event of a system crash. Password protection is employed to limit access to the system, and terminals are selectively locked out from access to information not required at their location. Older records which have become of only historic value are archived, transferred to disc, and deleted from the system.

The installation as so far described is at a single location. Figure 2 is a schematic block diagram of a more complex installation.

This comprises a number of peripheral stations 21, 22, 23, each of which is an installation of the same general kind as that shown in Figure 1, but instead of each having its own central processing unit and file server, they all share a common central processing unit 24 and a file server 25 located at a single central station 26. The peripheral stations are linked to the central station by data transmission means, which may comprise dedicated data lines, or a modem at each station connected by dial-up lines when required.

CLAIMS

1. Installation for handling perishable goods and recording and controlling their movements, comprising

5 a. a goods inwards facility including data entry means arranged to receive data representing the supplier, quantity, type, unit size and charging basis of each consignment of goods unloaded at the facility,

b. a goods storage facility,

c. data storage means,

10 d. a central data processing unit,

e. at least one sales control terminal arranged to receive data representing the type and quantity of goods to be supplied and the identity of the customer to whom they are to be supplied,

15 f. a despatch facility for despatching goods selected at a sales control terminal,

20 the storage means storing information relating to suppliers and customers, and the central data processing unit being arranged to generate for each consignment, from the entered data and the stored information, a consignment code including a consignment serial number and an identifier for the supplier, to compute the balance remaining of each type of goods in each consignment, to display such balances for a specified type of goods on demand at a sales control terminal, and to receive from the sales control terminal input data indicating the allocation to a customer of
25 goods from such balances.

2. Installation according to claim 1 in which the consignment

balances are displayed in date order and goods from the consignment of earliest date are automatically allocated to each order in default of an alternative entry.

- 5 3. Installation according to claim 1 or claim 2 further including means for entering data representing spoilt or returned goods.
- 10 4. Installation according to any preceding claim having a plurality of stations, each with a goods inwards facility with its data entry means, a goods storage facility, a despatch facility and at least one sales control terminal, each such station being linked by data transmission means to a single central station having data storage means and a central processing unit.
- 15 5. Installation according to any preceding claim arranged to generate periodic stock balance records and including means for entering adjustment data to adjust discrepancies between the recorded balances and physical stock.

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Patent's Act 1977
Examiner's report to the Comptroller under
Section 17 (The Search Report)

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Relevant Technical fields

(i) UK CI (Edition K) G4A (AUX) B8W (WC)

(ii) Int CI (Edition 5) G06F

Databases (see over)

(i) UK Patent Office

(ii)

ONLINE DATABASES : INSPEC, WPI

Search Examiner

L A MIDDLETON

Date of Search

5.6.91

Documents considered relevant following a search in respect of claims

1-5

Category (see over)	Identity of document and relevant passages	Relevant to claim(s)
Y	US 4621325 A (NAFTZGER)	1
Y	US 4463429 A (DEVALE ET AL)	1
Y	US 4336589 A (SMITH ET AL)	1
	"KEEPING TRACK OF DISTRIBUTION" INDUSTRIAL COMPUTING (GB) No 11 February 1987 pages 36-37	1

SF2(p)

Category	Identity of document and relevant passages	Relevant to claim(s)

Categories of documents

X: Document indicating lack of novelty or of inventive step.

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A: Document indicating technological background and/or state of the art.

P: Document published on or after the declared priority date but before the filing date of the present application.

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